State of New Mexico
LEGISLATIVE FINANCE COMMITTEE

325 Don Gaspar • Suite 101, Santa Fe, New Mexico 87501
(505) 986-4550 Fax: (505) 986-4545

DAVID ABBEY
DIRECTOR

April 27, 2006

MEMORANDUM

TO: Representative Luciano "Lucky" Varela, Chair
and members of the Legislative Finance Committee

FROM: David Goodrich, IT Performance Auditor
Legislative Finance Committee

SUBJECT: Status of E911 Implementation

EXECUTIVE SUMMARY

The objectives of this review were to:

- Evaluate the effectiveness of E911 funding and expenditures;
- Evaluate interoperability issues;
- Verify the effectiveness of E911-related consolidation efforts; and
- Evaluate E911 program management and compliance with rules and laws.

A lack of adequate staffing and expertise, both at the state level (DFA) and local government led to the key findings in this review. However, within the last six months, a dedicated project manager has been hired and indications are that the program has improved. However, staffing and expertise is still limited to address all needs of the project. The project has been certified by the Information Technology Committee. Key findings included:

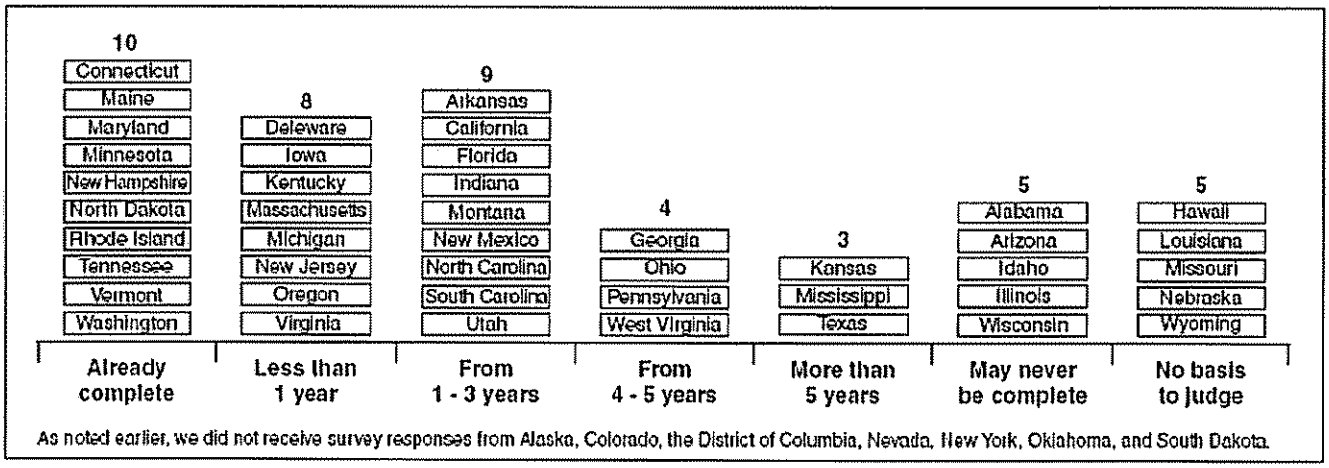
- Fifty percent of wireless 9-1-1 callers can be located by longitude and latitude, yet this functionality is limited to five of 33 counties.
- There is not a statewide organization to represent the combined issues of Public Safety Answering Points (PSAPs), Geographic Information Systems (GIS), State Police, Fire, EMS, and Homeland Security.
- Proposed DFA rules are difficult for smaller PSAPs to implement, given their small staff and lack of resources.
- There is not a coordinated long-range plan that includes state and local government.
- The E911 Fund stops short of funding computer aided dispatching systems and radios used in responding to every 9-1-1 call. This is often where interoperability issues arise -- between answering the 9-1-1 call and dispatching.

Key Recommendations:

- Evaluate the need for additional resources to adequately administer and implement the program at DFA and in local government.
- Continue to work toward statewide implementation of Phase II Wireless by January 1, 2007 by assisting and working with local governments.
- Coordinate E911 program plans with DPS, Homeland Security, other relevant state agencies and local governments.
- Establish a statewide E911 workgroup with representatives of state agencies and local governments, including fire, police, sheriff, and emergency medical services (EMS).
- Evaluate whether additional funding can be provided to local governments to assist in meeting the January 1, 2007 target for 96 percent database accuracy.

Background Information. The state E911 program is administered by the Special Programs Bureau (SPB) of the Local Government Division (LGD) of the Department of Finance and Administration (DFA). The goal of the program is to provide grants to local government entities (counties and municipalities) to implement E911 services for callers within their county or municipality. The E911 program is one of several programs administered on behalf of local government by SPB. Implementing an E911 program presents key challenges including political, technical, financial, and most importantly, E911 directly affects the life or death of New Mexicans.

Timeframe to Complete States' Wireless Phase II Implementation (as of March, 2006)



As noted earlier, we did not receive survey responses from Alaska, Colorado, the District of Columbia, Nevada, New York, Oklahoma, and South Dakota.

Source: GAO analysis of state survey responses.

Section 63-9D NMSA 1978, "Enhanced 911 Act", provides for an enhanced 911 fund. The revenue source for this fund is a $0.51 fee on all landline and wireless monthly phone bills. In August 2000, $4.5 million in bonds were sold to pay for equipment purchases in Albuquerque, Las Cruces, Bernalillo, Lincoln County, Santa Fe, and Rio Rancho. Wireless providers began collecting a service charge in the fall of 2001. The fees total approximately $10 million annually. Approximately $117 million has been expended from DFA grants from the fund since

the inception of the program in 1989. DFA reviews requests for grants and recommends them to the Board of Finance for funding. DFA meets with the Board of Finance as needed to obtain approved funding for equipment upgrades or replacements. DFA then takes this total and plans what parts of the E911 program they are able to accomplish that year. Also, every year DFA is required to present a status of the fund to the legislature regarding whether the fund is adequate, excessive, or inadequate to meet the needs of the program for the next year. Over the last three years, DFA has informed the legislature that the funds are adequate. There is no federal funding for this program.

What is Interoperability?

Interoperability is the ability for public safety personnel to talk with one another via radio communication systems – to exchange voice and/or data with one another on-demand, in real time – whenever necessary. It creates inter-communications that support effective incident management (tactical) and emergency management (strategic) activities; these in turn support continuity of operations and government functions during emergencies and catastrophic events.

An important federal act relating to E911 is the Wireless Communications and Public Safety Act of 1999 (see Appendix A). The Act encourages states to establish a comprehensive end-to-end emergency communications infrastructure to meet the Nation's public safety and communication needs. States were encouraged to develop and implement coordinated statewide deployment plans through an entity designated by the governor that includes representatives in the development and implementation of such plans to include emergency medical providers, emergency dispatchers, transportation officials, fire service and law enforcement officials, consumer groups, telecommunications industry, etc. Utah, Nebraska, Nevada, Idaho, and Montana have modeled their programs accordingly by the establishment of a statewide representative committee to oversee the E911 funds and implementation. North Dakota's program is managed by their Department of Emergency Services. South Dakota's program is managed by a statewide coordinated taskforce that reports to their Department of Public Safety.

The first dedicated E911 program manager with project management skills was hired recently by SPB. Prior to this hiring, the director of SPB spent a portion of her time (among other programs) managing the program, with two other dedicated FTE who were primary deployed to the field. The new project manager is a certified Project Management Professional (PMP) as recommended by the state Chief Information Officer.

The program has been extremely complex and time-consuming as it involves negotiating with every county and municipality in the state of New Mexico to upgrade their PSAPs / Dispatch Centers with the appropriate phone lines, hardware, software, phone number and location data, geographic data, and training necessary for PSAPs to receive 911 calls. DFA does not pay for the staff to operate these consoles and equipment. DFA has limited their grants to only the call-receiving equipment, dispatching equipment, and phone lines, but not radios or radio towers. However, once a 911 call has been received at a PSAP, it must be dispatched to emergency

personnel using appropriate systems and radios. The radio dispatching portion of the "end-to-end communications infrastructure" is not funded by DFA. This is where interoperability issues arise: between the 911 equipment and correctly dispatch emergency responders.

In an effort to save money by avoiding duplication of equipment and personnel, DFA has required the consolidation of several existing PSAPs, including their dispatch function.

Seventeen different telephone companies serve New Mexico. The largest of these are Qwest, followed by ENMR*Plateau and Valor. Qwest, alone, operates special routing equipment (called 'tandems') that route *every* state 911 call from the different telephone companies to local PSAPs. Intrado, Inc. (based in Colorado) provides the master database used to route all 911 calls to the local PSAP.

The current end-goal of the program is Phase II Wireless, or just "Phase II", scheduled to be completed January 2008. Due to the proliferation of wireless cell phone usage, which now exceeds the percentage of landline-based 911 calls in many areas, wireless is an integral part of E911 implementation. Phase II will take wireless 911 callers, route them to a local PSAP, and display the individual's name, number, emergency responders and phone numbers, other location information, and a map (based on GPS coordinates) of where the individual is located. This information is then relayed through an interface or manually to dispatchers who activate emergency personnel.

Accuracy of the databases maintained by Intrado, telephone companies, and PSAPs is vital to being able to timely dispatch emergency services to the correct location of a 911 caller. All three of these entities are continually updating their records to reflect new customers, changes to existing customers, and new geographic features such as road extensions and new subdivisions within the state.

Basic Audit Procedures. The basic audit procedures performed during this audit included:

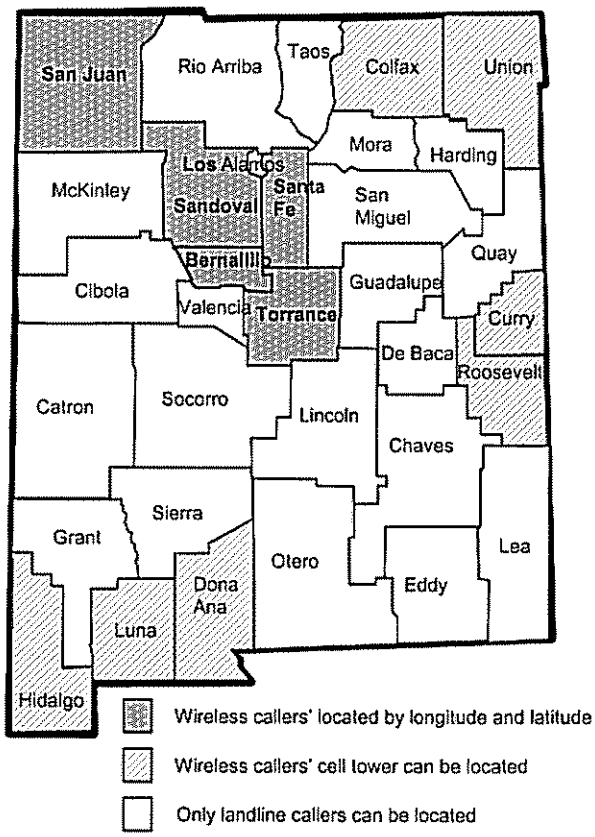
- Interviews with DFA and local government representatives.
- Comparisons of applicable federal and state laws, and national standards.
- Comparisons of others states' E911 programs.
- Review of fund financial reports and accounting records.

Exit Conference. The issues in this report were discussed in exit conference held on April 14, 2006, between LFC Performance Audit staff and DFA. The following attended the meeting: Rick Martinez, DFA Deputy Secretary; Robert Apodaca, DFA Director, Local Government Division (LGD); Joyce Johnson, Bureau Chief, DFA's Special Programs Bureau (SPB); William Range, DFA E911 Project Director; Christine Chavez, LFC Deputy Director for Performance Audit; David Goodrich, LFC Performance Auditor. The issues were further discussed with the same individuals on April 25, 2006.

As a result of our review, we noted the following:

A Wireless 9-1-1 Caller Cannot be Located in Most Counties. According to DFA's latest annual report, $117 million has been spent since the inception of the 9-1-1 program in 1989, of which $80.4 million has been spent on local Public Safety Answering Point (PSAP) equipment and maintenance. Since 1993, there have been $26.9 million in E911 network and database expenditures. Since 2001, $8 million has been spent on wireless mapping and equipment. Although the program has achieved its goal of "Phase II Wireless" for 50 percent of the New Mexico population, only five of 33 counties provide the ability to locate wireless 9-1-1 callers by longitude and latitude. Phase I wireless, which can locate a wireless caller to the nearest cell tower, is available in seven counties. Refer to graph below.

New Mexico E911 Implementation as of April 2006
Expenditures of $117 million



Although landline 9-1-1 calls are supported, wireless 9-1-1 calls now make up more than half of all 9-1-1 calls. There are several reasons for slow progress in the program including earlier mistakes in vendor and technology selection, lack of program planning, and lack of program management. This is not to say that New Mexico is on the bottom of the list in regards to E911 implementation. According to a March, 2006 GAO Report, some states (Connecticut, Maine

Maryland, Minnesota, New Hampshire, North Dakota, Rhode Island, Tennessee, Vermont and Washington) have already implemented Phase II Wireless statewide. Some states (including Arizona, Idaho, Nebraska, Texas, and Wyoming) are behind New Mexico in their implementation (see Table, Page 2).

Program Direction is Improving. Based on interviews and review of DFA documentation, the program lacked a consistent direction over the years. Although the program lacked direction initially, changes such as recently adding a full-time experienced project manager, and refinements in the administration of the program have improved the program. In 1998, grants were made directly to local government entities without sufficient direction on how to expend them. Since 2002, expenses are paid on behalf of local governments by DFA. According to a report published by DFA in 2003, funds have been given for salaries, vehicles, and departmental cross-use of data and equipment. Funds were given to a rural addressing effort which resulted in less-than accurate results. Some contracts were signed by DFA employees instead of by PSAPs. As a result, to ensure that funds are appropriately spent, DFA now reviews and approves all purchases, which has improved oversight and monitoring but increased DFA's administration of the grants. Contributing to some of these issues is the fact that the program was not assigned its first dedicated program manager until 2006. It took DFA a year and a half to get the position filled.

The target to implement Phase II Wireless (the ability to locate a wireless caller by longitude and latitude) statewide of January 2008 is an ambitious goal, since there are twenty-one counties that still have not reached Phase I (the ability to locate a caller's nearest cell-tower), and given that progress is determined by the readiness and willingness of local governments.

Recommendation. Continue to work with counties to achieve the target of implementing Phase II Wireless by January 2008. Legislative Finance Committee staff will monitor progress.

Department Response. DFA will work diligently to achieve the target date of January 2008 for implementing Phase II Wireless. DFA will utilize recognized project management tools and techniques to achieve this goal. The ability to achieve this goal rests not only with DFA, but with local county governments as well. Factors not under DFA's control that might delay this objective include the local governmental entity failing to consolidate PSAPs, poor database maintenance quality, or lack of building space availability.

The E911 Program Needs State and Local Coordination. There is a lack of coordination in planning and implementation of the E911 program among state agencies such as DFA and State Police, Office of Emergency Management and Homeland Security. Also local government entities believe their input is not taken into account regarding rule-making and funding decisions, despite past attempts by DFA to sponsor Wireless Workgroups and Network and Database Groups. DFA indicated that prior to their consolidation effort, they approached DPS, but were told by DPS that they did not want to participate.

The State's E911 Program Differs from that Encouraged by Wireless Communication and Public Safety Act of 1999. The State's E911 program differs from that encouraged by the federal Wireless Communication and Public Safety Act of 1999 in a few major areas, specifically in Sections 2 and 3 (see Appendix A). The E911 Fund is limited, and does not fund a seamless end-to-end emergency communications network – one that covers all services from the initial 9-1-1 call to providing emergency services to the individual in-person, which may involve Homeland Security depending on the nature of the call. The state has not developed plans that are coordinated and implemented via an entity designated by the governor consisting of representatives from local government, public safety officials, industry representatives, and emergency responders. The federal Wireless Communications and Public Safety Act of 1999 (see Appendix A) encourages states to implement an end-to-end solution.

The E911 Program Could Benefit from Additional Local Government Representation. The E911 program is managed by the Local Government Division Special Programs Bureau (SPB) of DFA. According to SPB staff, Bernalillo County was used as a model to form various local groups such as the Wireless Workgroup and Network and Database Group (NED) throughout the state. However, there is no statewide group to represent issues of all stakeholders. In seven other similar sized states, five (Utah, Nebraska, Nevada, Idaho, and Montana) manage their E911 program by a committee of local government and industry representatives designated by their governor as recommended by the Wireless Communications and Public Safety Act of 1999 (see Appendix A). In two of the seven states, North and South Dakota, the program is run though their Office of Emergency Management. Texas operates the program through their Office of Emergency Communications. Arizona has a "9-1-1 Planning Committee" consisting of representation from all PSAPs, including firefighting, law enforcement, ambulance, and other medical and emergency services.

Section 63-9D B NMSA 1978, states "It is the purpose of the Enhanced 911 Act [63-9D-1 NMSA 1978] to further the public interest and protect the safety, health and welfare of the people of New Mexico by enabling the development, installation and operation of enhanced 911 emergency reporting systems to be operated under shared state and local governmental management and control."

New Mexico runs the program out of the Department of Finance and Administration. Since the program directly involves standards and funds that pertain to local governments, their inclusion is critical for a successful outcome. It appears that the needs voiced by local government entities exceed the services provided by DFA. An example of this difference is the January 31, 2006, 14 page letter from the New Mexico Association of Counties (NMAC) and the New Mexico Municipal League (NMML) to DFA regarding their rule proposal (NMML has since withdrawn their support of this letter). The letter describes many of the unresolved differences between local governments and DFA such as not following national standards in regards to the use of community names, requiring verification of database maintenance performed by telephone companies, withholding funds for new equipment for not achieving 96 percent database accuracy, limited timeframe to comply with rules, unfunded GIS requirements, and other issues.

The need to expand the appeal mechanism appears to be an issue. These issues were reiterated by some local government representatives in a public hearing conducted by DFA on April 17, 2006.

DFA's SPB staff indicates that standards and rules are established to meet the needs of the state as a whole, and do not necessarily accommodate individual county needs. SPB reports they are working to resolve these issues by providing additional consulting services. Further, DFA is considering the establishment of a statewide group of stakeholders to hear local concerns and make recommendations.

To address a need for local government representation in the E911 program, the NMAC 911 Directors Affiliate was formed on April 7, 2006 to present a unified voice of E911 Directors to the state. According to NMAC leadership, this new affiliate has not yet formally met. Although the affiliate has voiced support for the new DFA rules, we understand that NMAC does not support the rules.

Also, in 2000, DFA commissioned Concepts To Operations, Inc., to conduct a study which indicated:

> "...the State E911 Program Director is solely responsible for reviewing and making recommendations for approval/disapproval of local PSAP funding requests to the Board of Finance. This should not be the responsibility of a single person. Consideration should be given to creating a board/commission comprised of 9-1-1 practitioners appointed from the various PSAPS (representing police/fire/EMS agencies), telephone company representatives (wireless and wireline carriers) and others with expertise in 9-1-1 systems and operations. Inclusion of the state's E911 Program Director on this commission could be considered. The Wireless 911 Advisory Group that was formed in 1999 could, with an expanded charter, function in this capacity".

In February 2006, DFA had organized a training conference (which was attended by LFC staff) between Intrado, Qwest, other telephone companies, and PSAP personnel to discuss and attempt to resolve local issues.

Gartner Research recommends the formation of regional E911 committees, each focused on a different area, such as consolidation, network, database, security, and funding. This model is used in other states.

The Statewide Interoperability Workgroup (not associated with DFA), which consists of members of local government entities, fire, sheriff, Emergency Medical Services (EMS), and industry, has been meeting for over two years to promote the best solutions for statewide emergency communications interoperability. They have used funding, for instance, to buy the same radio in every hospital in the state so that they can intercommunicate. This group has a similar function and membership to that suggested by the Wireless Communications and Public Safety Act of 1999 (see Appendix A), but this group is not coordinated with this program.

State Lacks a Centralized Statewide E911 Entity. Since there is no statewide entity (such an E911 committee) to centrally manage the E911 program beyond the DFA grant program, there is no place to house programs like the statewide E911 digital mapping system or with whom to sign contracts on behalf of the state. As it is, a local government PSAP was designated through which to provide the statewide digital mapping. Although Santa Fe Regional Emergency Communications Center (SFRECC) originally agreed to house the equipment through a memorandum of understanding signed in 2004, current PSAP staff is unhappy with this arrangement. It appears that they did not fully understand the responsibility required for the development and maintenance of the equipment. Recently, SFRECC indicated they are hesitant to authorize work performed by SDR for which they are not receiving services. Also, they indicate there has been no provision for the maintenance or operation of the new system.

Section 63-9D-8 E NMSA 1978, states "Annually, the division may expend no more than five percent of all money deposited annually in the fund for administering and coordinating activities associated with implementation of the Enhanced 911 Act."

This situation has occurred because DFA indicates that since they are a grant program they cannot enter into any contracts on behalf of the state, and that professional services agreement with SDR must be signed at the local level. If the state had a formal E911 program, then that program could be funded, enter into contracts on behalf of the state, provide state hosting of central systems, and thereby protect state interests and not overburden a local government entity with a state program.

Also, since DFA cannot enter into contracts on behalf of the E911 program for the state as a whole, there are separate contracts between each PSAP and vendor. This has increased the amount of administration performed by DFA over contracts, especially in their tracking, renewal, and approval.

In addition, this proposed entity could contract with such companies as Intrado, Inc. to ensure that state standards are followed and better assure the security of state E911 data stored in their databases.

PSAP Consolidation is Reasonable but Could Be Improved. The state has 18 consolidated (or in the process of consolidation) PSAPs. These PSAPs were created by combining nearby emergency dispatching services into a single location, saving on FTE, duplicate 911 network costs, hardware, utility costs, etc. While this often involves a difficult political process, the result is worthwhile. The methodology followed by DFA (as stated in NMAC 10.6.2.15) appears reasonable and the consolidated PSAPs we spoke to responded positively. However, DPS dispatch centers have not been included in the consolidation. Including nearby DPS dispatch centers would have further reduced overall costs for the state and further improved interoperability between local government and DPS.

In DFA's "Management Audit of the State E9-1-1 Program", the report recommends consolidating each state police district PSAP into their local government consolidated PSAP.

As it is, State Police cannot efficiently interoperate with local government PSAPs, increasing emergency dispatch response time. Had DPS chosen to participate in the consolidations, it would have further saved state funds, further enhanced the state's ability to respond to local and state emergencies, provided back-fill for sheriffs, reduced emergency response time and reduced multiple responders to same caller.

Should a PSAP (especially a consolidated PSAP) need to be abandoned, such as due to a fire, a designated backup should immediately be able to resume operations. Some local representatives we spoke to doubted whether there would be sufficient radio interoperability to permit dispatching of remote emergency responders. In addition, Catron County and Guadalupe County PSAPs have no backup.

Recommendations. Make detailed and accurate multi-year program plans coordinated with DPS, Homeland Security, and local governments, and measure actual progress against a baseline program plan. Evaluate the cost and effort required to align the program with the Wireless Communications and Public Safety Act 1999 (see Appendix A).

Evaluate the best placement for the administration of program, given the needs of the state and local government as a whole. For instance, consider moving the program to the Office of Emergency Management to take advantage of additional funds for emergency dispatch and their network of local emergency responders. Alternately, consider moving the operation of the program under the control of the Statewide Interoperability Workgroup (similar to the type of statewide workgroup that DFA is now considering), with DFA retaining financial responsibility. Monitor the progress of the federal Enhance E911 Act and apply for federal grants when available. Increase consulting and mapping services provided, especially to the smaller PSAPs.

Make plans to integrate State Police dispatch centers into local government PSAPs. Designate a backup for each PSAP; ensure that each designated PSAP backup has the ability to remotely dispatch emergency services.

Department Response. DFA does have detailed, multiyear plans required by the Office of the Chief Information Officer (OCIO). Coordination with DPS and Homeland Security will heavily depend on their willingness to participate. DFA has no plans to evaluate the cost of providing an "end to end solution". This would require a shift of the tax burden for providing radio equipment from the Federal Government to the local level. Citizens of New Mexico would be faced with an increase in surcharge from $.51 to as much as $5.00 per telephone landline or cellular telephone.

The end to end solution is a good concept, but PSAPs across the nation are locally operated. This requires collaboration among the different segments. The end to end solution mentioned in the Wireless Communications and Public Safety Act of 1999 does not mention a common funding source. The fact is that an end to end solution is in place today – part of it funded by local 911 surcharges and part funded by the Federal Government as part of Homeland Security. The funding mechanism for radio equipment is in place today.

The best placement for the program is in the Local Government Division (LGD). The LGD has the resources, experience and knowledge to work with local governmental entities. This is a program by and for local governments. The end to end solution is reached with collaboration between Homeland Security and other parties.

DFA will continue providing assistance to counties in need of help, depending on available funds. Much money has been spent in the past to bring counties up to the 96% accuracy level, yet local governments in some cases have not provided the local emphasis on the program to maintain these levels. DFA will provide additional assistance if local entities through Memorandums of Understandings (MOUs) show how they intend to maintain accuracy levels.

State Police has been asked to participate in dispatch centers in the past and they elected not to do so, except for in San Juan County. The San Juan County consolidated PSAP is a model consolidated PSAP. DFA has no control over State Police.

While designation of a back up PSAP is required in rule 10.6.2 NMAC, Enhanced 911 Requirements, DFA lacks the authority by law to do on-site compliance monitoring to ensure compliance with the rule. Even though DFA has no authority to monitor compliance with our rule, we will work with PSAPs to encourage them to establish a back up.

Funding Does Not Cover All Expenses Required to Respond to a 911 Call. Based on NMAC 10.6.2.11 E., F. and as confirmed by interviews, E911 funds primarily cover only the costs of routing 9-1-1 calls to their local PSAP, plus 9-1-1 call answering equipment. However, the funds do not cover the E911 staffing, computer aided dispatch (CAD) equipment, mobile radios, and geographic information system staffing, though these are used to dispatch emergency 9-1-1 calls.

Gartner Research indicates that additional funds for E911 programs are available from the Department of Homeland Security if the program can be linked to Homeland Security. An argument can be made that calling 9-1-1 is a key counter-terrorism tool.

An April 2004, National Governor's Association (NGA) center brief indicated that the deployment of the wireless E911 service is among the most urgent Homeland Security enhancements states currently face.

The federal Enhance 911 Act 2004, although not yet funded, is intended to provide states with $250 million in grants for enhanced emergency communications.

Because DFA indicates that the program is limited to grant funding on behalf of local governments, long-range plans that include State Police and Homeland Security could be coordinated to provide funding for the other areas of emergency communications that are not covered by the E911 Fund. The state could leverage resources to enhance the services provided to local governments.

Recommendations. Coordinate and collaborate with state agencies (including State Police, Office of Emergency Management and Homeland Security) and local government entities, representatives from fire, sheriff, medical, industry, etc., not just as an advisory function, but directly involved in the planning, operations, and funding decisions, to achieve an end-to-end solution. Revise the program so that local governments and state agencies are directly involved in the creation and revision of rules. Leverage expertise and resources to resolve common problems and ensure that citizens have adequate E911 services.

Department Response. The New Mexico Enhanced E911 Act gives DFA, LGD the authority to administer the E911 Program. This authority is not given by law to a collaborative of state agencies. DFA's Cabinet Secretary has final authority over the rule. This is a grant program that supports local operations of the E911 call centers.

DFA will take the lead in working with the New Mexico Association of Counties and the New Mexico Municipal League to form an advisory group as described. State Police, Office of Emergency Management, and Homeland Security will be invited to participate. The degree of participation will be their decision.

Reporting on Adequacy on E911 Fund Appears Reasonable. By statute, DFA is required to report to the Legislature whether the fund and $.51 surcharge is adequate, excessive, or insufficient to meet the needs of the state for the following year. Each year DFA has reported that the fund is adequate. According to the Legislative Counsel Service (LCS), the legislature has only received reports on the fund for the year 1996 and 1999 through 2004.

DFA has projected their costs through fiscal year 2010 (see Appendix B). They have pushed back their target date for Phase II Wireless implementation from June 30, 2007 to January 2008. This plan is based on working within the revenue provided by the $.51 telephone bill fee, to achieve statewide Phase II Wireless by 2008. According to DFA, the rate of implementation is driven by counties' readiness to move to the next phase, such as Wireless Phase II. DFA indicates they are working with counties, especially smaller PSAPs to achieve the goal by the January 1, 2008 deadline. Some counties still believe that the $.51 fee is not enough to fund all of the needs to provide E911 service.

Once the deadline is reached, continued funding will be needed for on-going operational, equipment maintenance, and new technologies. Intrado indicates that New Mexico is in a good position to move to new technologies.

Recommendations. Continue to monitor whether funding is sufficient to meet the needs for statewide Phase II Wireless implementation. Continue to report whether the fund is adequate, inadequate, or excessive, and report this to the legislature annually as required by statute. Revise the distribution of the report to include the Legislative Finance Committee (LFC).

Department Response. On an annual basis, DFA will monitor whether funding is sufficient to meet the needs not only for statewide Phase II Wireless Implementation, but also to maintain all

aspects of the New Mexico E911 Program. DFA will ensure the LFC gets a copy of the report each year.

Staffing and Expertise Limitations have Adversely Affected the Program. Over the last 15 years of the program's existence, only two FTE have been assigned to the E911 program until 2006 when a full-time program manager was added. Reliance has been placed on out-of-state companies which are not contracted by the state: Intrado (based in Colorado) and Qwest (based in Denver). Most PSAPs interviewed mentioned the lack of expertise at DFA. DFA agrees that the program has suffered from a lack of expertise, especially in the area of GIS. In contrast, Arizona hired a full-time GIS coordinator in 2004. SDR, who had been bid via request for proposal (RFP) and placed on a state price agreement by DFA, is the primary contractor providing GIS services to the state. Due to the highly technical nature of their work, SDR's progress is not adequately reviewed by DFA. This contract is set to expire in August 2006 and DFA is currently preparing an RFP to continue services.

In a January 31, 2006, letter from the New Mexico Association of Counties (NMAC) and New Mexico Municipal League (NMML), they cite "... the division [DFA] does not have the expertise to craft standards in this area [GIS]".

Likewise, most PSAPs indicated that they have a critical shortage of trained staff. Dispatchers are typically low paid, highly stressed, and subject to frequent turnover, yet they are put in a position of great responsibility over the lives of New Mexicans. In addition, addressing staff which are needed to achieve the 96 percent database addressing accuracy proposed, are in short supply, especially at smaller PSAPS. Smaller PSAPs are typically more rural and have a small resource pool from which to recruit personnel.

Section 63-9D-4 A NMSA 1978 states a local governing body or consortium may incur costs and pay costs from the fund for an enhanced E-911 system "... provided the local governing body has employed properly trained staff at its public safety answering point pursuant to the Public Safety Telecommunicator Training Act."

Recommendations. Expand DFA staff and expertise to adequately support the program, including GIS expertise. Ensure the GIS contract is awarded upon expiration of the SDR contract to avoid disruption of services.

Department Response. DFA concurs that a full time GIS person on staff would benefit the program.

DFA Rules are Difficult for Smaller PSAPs. DFA established a set of rules that each county's PSAP must follow in NMAC 10.6.2. DFA has held a public hearing on proposed rules and amendments as required by law. However, county personnel indicate that their input is not taken into consideration and therefore, these rules are established without sufficient coordination or buy-in from local government entities. Some PSAP expenses are not funded including mobile radios, cell phones, maintenance costs for radio equipment, direct or indirect costs such as

contributions to retirement, health insurance, labor, operations overhead, rent, utilities, or remodeling. However, DFA reports that their rules and policy must apply to the state as a whole, not just for the interests of a specific group. DFA indicates they are considering the formation of a response team with resources from larger counties that would assist smaller PSAPs.

DFA indicates they have never verified compliance to ensure that their rules are being followed. This raises the potential that some PSAPs may not be providing sufficient staffing or services to their constituents. DFA would need additional staff to perform grant compliance. A report published by DFA in 2003 indicates that the size and scope of the program justifies a state-level official to monitor the grants; the report states that in a few cases wasteful use of monies could have been avoided.

Section 63-9D-4 A NMSA 1978 states a local governing body or consortium may incur costs and pay costs from the fund for an enhanced E-911 system "... provided the local governing body has employed properly trained staff at its public safety answering point pursuant to the Public Safety Telecommunicator Training Act."

A proposed DFA rule requires PSAPs to achieve a 96 percent database addressing accuracy to avoid loss of funding for new equipment upgrades (for landline calls only, the more accurate their database, the more likely that emergency personnel will be timely dispatched to the caller's correct physical address). Also, wireless callers (which comprise over half of all 9-1-1 calls) are tracked via longitude and latitude (instead of a physical address) – assuring their accuracy is excluded from the 96 percent requirement. The proposed rule does not indicate what has been changed from the current rule to quickly identify updates.

Section 63-9D-4 D. NMSA 1978 states "A local governing body in an enhanced 911 service area shall provide GIS addressing and digital mapping data to the public safety answering point that provides the enhanced 911 service to the local governing body."

The accuracy of the addressing databases is not just determined by the PSAP, but depends on other parties who also maintain the data, which includes the 17 local telephone companies and Intrado, Inc. The overall database accuracy is a result of maintenance performed by all of these parties. If one party fails to timely perform required maintenance, accuracy will suffer. The proposed rule requires local governments to verify the accuracy of work performed by local telephone companies, but does not mention the responsibility of local telephone companies. To enforce telephone companies to maintain data accuracy, the only recourse local governments have is to use the Public Regulation Commission (PRC), which has been successful in some cases.

Also, the proposed rule gives PSAPs only until July 1, 2006, to obtain the required 96 percent addressing accuracy. Smaller PSAPs indicate they do not have the resources required to achieve this goal within this short time period. However, DFA has indicated they will extend the deadline for compliance until January 1, 2007. DFA says they are working on managing the

situation to ensure that smaller PSAPs will be able to meet the 96 percent accuracy rate by the deadline.

In addition, since Qwest has a special arrangement with Intrado to keep their database synchronized, PSAPs whose Local Exchange Carrier (LEC) is not Qwest have an automatic disadvantage in their database accuracy. Some other states (such as Arizona, Utah and Texas) have accuracy requirements of 95 to 99 percent. Texas and Utah do not use the withholding of funding to enforce database accuracy compliance. However, Arizona does withhold funding to encourage compliance.

Since DFA has no contract with Intrado, Inc., Qwest, or the 16 other telephone companies, it has no leverage over them, to make them increase their database accuracy. Given the current structure of the E911 program, the only enforcement DFA can apply is to deny funds to local PSAPs. However, PSAPs we spoke to feel this is an unfair burden, and that the responsibility for accuracy should be placed on all entities which have a hand in determining the resulting accuracy of the data.

Recommendations. Continue working with PSAPs to develop an agreeable solution that ensures that citizens receive adequate E911 services. Ensure that PSAPs receive adequate training, education, and assistance necessary to comply with proposed rules. Consider providing smaller PSAPs extra temporary assistance in meeting rule requirements. Establish a grant compliance function to ensure that rules are being followed. Revise the proposed database accuracy rule to assign the responsibility for accuracy to all parties which have a hand in determining the overall accuracy of the database. Local governments should prioritize expenditures so that their responsibility for E911 services can be fulfilled.

Department Response. DFA will continue to support PSAP efforts in meeting the requirements of the rule. DFA will ensure that training, education, and assistance is received through consultant support and collaboration.

DFA just executed a contract for grant compliance through an Independent Validation and Verification contract. It is our intention to continue to fund this type of program audit in future years.

DFA will not change to the rule to assign responsibility of database accuracy to all parties. DFA's authority is over PSAPs, not telecommunications companies. Only the PRC has the authority to regulate telecommunications companies. The PSAP must be responsible for their database accuracy. DFA will assist PSAPs in working with telephone companies and other parties to resolve database issues on an as needed basis. At this point in time significant progress is being made as results of training and bringing parties together cooperatively. Examples are the improvements occurring in De Baca, Rio Arriba, Lincoln, San Miguel and Guadalupe Counties.

DFA will continue to address the New Mexico Association of Counties County Manager Affiliate and County Commissioner Affiliate to emphasize the importance of E911 work at the county level. However, it is the responsibility of local government to make E911 a priority, not DFA.

Intrado and Qwest and State Standards. DFA indicates that state standards for the E911 program were set by local governments in workgroup sessions. These standards were then followed by vendors such as Qwest and Intrado, Inc. Yet, some county personnel have indicated that these standards are set by Intrado and Qwest, instead of the state.

There is a disagreement between local government GIS staff, PSAPs, and DFA about how to properly record a community's name in the E911 databases. DFA, Intrado, and Qwest encourage the use of the English Language Translation field for this purpose, while some local government entities disapprove of this method, saying that it causes undue burden. DFA indicates that New Mexico is following national standards in their implementation of the community name. New Mexico, being especially rural, has different needs which depend on the community name information to correctly dispatch emergency personnel. For instance, according to a letter to DFA from the NMML and NMAC on January 31, 2006, in Santa Fe, 70 to 80 percent of the 130,000 population (including El Rancho, Pojoaque, Nambe, Tesuque, Agua Fria, La Cienega, Eldorado, etc.) are known to emergency personnel by their community names instead of the postal name of Santa Fe.

For example, Bernalillo County has successfully used this alternative. DFA is considering providing assistance to these local governments in how to properly enter the community name with this method, to the point of possibly assisting in the entering of the data.

Some PSAPs have noted that some of their address corrections submitted to Intrado are not updated or not timely processed. Since there is no contract between the state and Intrado nor between non-Qwest telephone companies (such as Valor) and Intrado, there is no leverage to encourage Intrado to provide better service or performance or to adhere to certain standards other than turning to the PRC. According to PSAP managers in a recent training conference, Intrado discourages PSAPs from submitting too many address updates per day. Indeed, since the contract is between Qwest and Intrado, Qwest has no motivation to 'help' competing telephone companies resolve their addressing problems. But if the address for a 9-1-1 caller is incorrect in Intrado's system, emergency responders will likely end up at the wrong location. Some PSAPs have gone to the PRC to resolve these issues, with some success. A training conference was held by DFA in February 2006 which included a panel to hear local government issues on E911.

In January 2006, West Corporation (based in Nebraska) announced their agreement to purchase Intrado, Inc.

Recommendations. Continue to work with local governments, Intrado, Qwest, and other telephone companies to address their needs through education, training or assistance to ensure 9-1-1 callers can be located.

Department Response. DFA will work with local government, Intrado, Qwest and other telephone companies to address their needs. As previously mentioned, DFA will take the lead in working with the New Mexico Association of Counties' affiliates to form a Stakeholder's Working Group to facilitate better cooperation and communications between all concerned parties.

New Technologies Resulting in Loss of Revenue. Technologies such as making telephone calls over the internet (Voice over Internet Protocol, or VoIP) and prepaid wireless are not addressed in current legislation. DFA estimates that current revenue lost from VoIP is $3,400 per month and rising. They estimate that the current loss of revenue from pre-paid wireless phones is $1 million each year.

Also, it should be kept in mind that the industry is already moving toward Next Generation (NG) E911 equipment, which will be Internet Protocol (IP) based, and once implemented, should result in overall savings and increased efficiency. However, converting the state's equipment, which is based on technology that is 40 years old according to Intrado, Inc. representatives, may require a significant investment. There are not yet plans to prepare New Mexico for NG, although the current Asynchronous Transfer Mode (ATM) network already in use will ease the transition. Reverse E911 is another project being considered for future implementation.

Recommendations. Evaluate the appropriate time to introduce legislation to cover these lost revenues due to VoIP and pre-paid wireless so that the state can maximize its revenues and fulfill its mandate to provide E911 services to its citizens. Include planning for NG equipment in long-range plans.

Department Response. DFA is currently considering introduction of legislation to introduce VoIP and pre-paid wireless into law. DFA is planning to introduce Next Generation E911 technology at the New Mexico Association of Counties (NMAC) summer conference in June. An outside speaker will give a presentation to introduce the subject to PSAP managers. DFA will form a committee to look into the long range possibilities of using the existing ATM mapping network. This may include hiring an outside consultant and issuing an RFP for a Next Generation solution using the existing ATM mapping network.

Program Accounting Needs Improvement. Requests for financial program data were met with delays. Reasons for the delays include lack of system functionality, lack of staffing continuity, and moving to the SHARE accounting system. The E911 program grants are tracked on Excel worksheets to determine when they need to be renewed. Grant expenditures are tracked via an Oracle database. Program budgeting is performed in Excel. DFA financial staff indicated that not all data being requested could be provided due to the limitations of their Oracle database. In addition, the E911 program manager does not receive reports from their Oracle system and has no access to the system to monitor program actual versus budget amounts for which he is responsible.

Although most of the E911 expenses are paid to vendors on counties' behalf by DFA, there are some cases, such as training, where a county is directly reimbursed. In a recent letter from NMAC and NMML to DFA, "... reimbursements are often delayed or never received at all." We noted one instance where a reimbursement for training expenses required one and a half years to be made back to the requesting county.

The DFA program accounting system does not appear to have sufficiently functionality to meet the needs of the local government division, local government entities, or satisfy external requests. As a result, program financial details can not be readily obtained. For instance, a report on grant and expenditure amounts for the program could not be provided.

Recommendations. Improve the tracking and reporting of grants and the E911 fund to meet the needs of internal and external users and to monitor funding. Revise the system and procedures for reimbursements to local government entities to ensure timely reimbursement such as within 30 days. Provide additional cross-training for existing staff and possibly add administrative staff to ensure continuity in financial tracking and reporting for the E911 program.

Department Response. DFA concurs that an improved accounting system is needed for the E911 program. DFA is currently working on a solution to this issue. The issue of reimbursements to local governmental entities is resolved. All requests for reimbursement are processed within five days of receipt.

Appendix A
The Wireless Communications and Public Safety Act 1999

PUBLIC LAW 106-81-October 26, 1999

One Hundred Sixth Congress of the United States of America

AT THE FIRST SESSION

Begun and held at the City of Washington on Wednesday, the sixth day of January, one thousand nine hundred and ninety-nine

An Act

To promote and enhance public safety through use of 9-1-1 as the universal emergency assistance number, further deployment of wireless 9-1-1 service, support of States in upgrading 9-1-1 capabilities and related functions, encouragement of construction and operation of seamless, ubiquitous, and reliable networks for personal wireless services, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the `Wireless Communications and Public Safety Act of 1999'.

SEC. 2. FINDINGS AND PURPOSE.

(a) FINDINGS- The Congress finds that--

(1) the establishment and maintenance of an end-to-end communications infrastructure among members of the public, emergency safety, fire service and law enforcement officials, emergency dispatch providers, transportation officials, and hospital emergency and trauma care facilities will reduce response times for the delivery of emergency care, assist in delivering appropriate care, and thereby prevent fatalities, substantially reduce the severity and extent of injuries, reduce time lost from work, and save thousands of lives and billions of dollars in health care costs;

(2) the rapid, efficient deployment of emergency telecommunications service requires statewide coordination of the efforts of local public safety, fire service and law enforcement officials, emergency dispatch providers, and transportation officials; the establishment of sources of adequate funding for carrier and public safety, fire service and law enforcement agency technology development and deployment; the coordination and integration of emergency communications with traffic control and management systems and the designation of 9-1-1 as the number to call in emergencies throughout the Nation;

(3) emerging technologies can be a critical component of the end-to-end communications infrastructure connecting the public with emergency medical service providers and emergency dispatch providers, public safety, fire service and law enforcement officials, and hospital emergency and trauma care facilities, to reduce emergency response times and provide appropriate care;

(4) improved public safety remains an important public health objective of Federal,

State, and local governments and substantially facilitates interstate and foreign commerce;

(5) emergency care systems, particularly in rural areas of the Nation, will improve

with the enabling of prompt notification of emergency services when motor vehicle crashes occur; and

(6) the construction and operation of seamless, ubiquitous, and reliable wireless telecommunications systems promote public safety and provide immediate and critical communications links among members of the public; emergency medical service providers and emergency dispatch providers; public safety, fire service and law enforcement officials; transportation officials, and hospital emergency and trauma care facilities.

(b) PURPOSE- The purpose of this Act is to encourage and facilitate the prompt deployment throughout the United States of a seamless, ubiquitous, and reliable end-to-end infrastructure for communications, including wireless communications, to meet the Nation's public safety and other communications needs.

SEC. 3. UNIVERSAL EMERGENCY TELEPHONE NUMBER.

(a) ESTABLISHMENT OF UNIVERSAL EMERGENCY TELEPHONE NUMBER- Section 251(e) of the Communications Act of 1934 (47 U.S.C. 251(e)) is amended by adding at the end the following new paragraph:

'(3) UNIVERSAL EMERGENCY TELEPHONE NUMBER- The Commission and any agency or entity to which the Commission has delegated authority under this subsection shall designate 9-1-1 as the universal emergency telephone number within the United States for reporting an emergency to appropriate authorities and requesting assistance. The designation shall apply to both wireline and wireless telephone service. In making the designation, the Commission (and any such agency or entity) shall provide appropriate transition periods for areas in which 9-1-1 is not in use as an emergency telephone number on the date of enactment of the Wireless Communications and Public Safety Act of 1999.'.

(b) SUPPORT- The Federal Communications Commission shall encourage and support efforts by States to deploy comprehensive end-to-end emergency communications infrastructure and programs, based on coordinated statewide plans, including seamless, ubiquitous, reliable wireless telecommunications networks and enhanced wireless 9-1-1 service. In encouraging and supporting that deployment, the Commission shall consult and cooperate with State and local officials responsible for emergency services and public safety, the telecommunications industry (specifically including the cellular and other wireless telecommunications service providers), the motor vehicle manufacturing industry, emergency medical service providers and emergency dispatch providers, transportation officials, special 9-1-1 districts, public safety, fire service and law enforcement officials, consumer groups, and hospital emergency and trauma care personnel (including emergency physicians, trauma surgeons, and nurses). The Commission shall encourage each State to develop and implement coordinated statewide deployment plans, through an entity designated by the governor, and to include representatives of the foregoing organizations and entities in development and implementation of such plans. Nothing in this subsection shall be construed to authorize or require the Commission to impose obligations or costs on any person.

SEC. 4. PARITY OF PROTECTION FOR PROVISION OR USE OF WIRELESS SERVICE.

(a) PROVIDER PARITY- A wireless carrier, and its officers, directors, employees, vendors, and agents, shall

have immunity or other protection from liability in a State of a scope and extent that is not less than the scope and extent of immunity or other protection from liability that any local exchange company, and its officers, directors, employees, vendors, or agents, have under Federal and State law (whether through statute, judicial
decision, tariffs filed by such local exchange company, or otherwise) applicable in such State, including in connection with an act or omission involving the release to a PSAP, emergency medical service provider or emergency dispatch provider, public safety, fire service or law enforcement official, or hospital emergency or trauma care facility of subscriber information related to emergency calls or emergency services.

(b) USER PARITY- A person using wireless 9-1-1 service shall have immunity or other protection from liability of a scope and extent that is not less than the scope and extent of immunity or other protection from liability under applicable law in similar circumstances of a person using 9-1-1 service that is not wireless.

(c) PSAP PARITY- In matters related to wireless 9-1-1 communications, a PSAP, and its employees, vendors, agents, and authorizing government entity (if any) shall have immunity or other protection from liability of a scope and extent that is not less than the scope and extent of immunity or other protection from liability under applicable law accorded to such PSAP, employees, vendors, agents, and authorizing government entity, respectively, in matters related to 9-1-1 communications that are not wireless.

(d) BASIS FOR ENACTMENT- This section is enacted as an exercise of the enforcement power of the Congress under section 5 of the Fourteenth Amendment to the Constitution and the power of the Congress to regulate commerce with foreign nations, among the several States, and with Indian tribes.

SEC. 5. AUTHORITY TO PROVIDE CUSTOMER INFORMATION.

Section 222 of the Communications Act of 1934 (47 U.S.C. 222) is amended--

(1) in subsection (d)--

(A) by striking `or' at the end of paragraph (2);
(B) by striking the period at the end of paragraph (3) and inserting a semicolon and `and'; and
(C) by adding at the end the following:

`(4) to provide call location information concerning the user of a commercial mobile service (as such term is defined in section 332(d))--

`(A) to a public safety answering point, emergency medical service provider or emergency dispatch provider, public safety, fire service, or law enforcement official, or hospital emergency or trauma care facility, in order to respond to the user's call for emergency services;

`(B) to inform the user's legal guardian or members of the user's immediate family of the user's location in an emergency situation that involves the risk of death or serious physical harm; or

`(C) to providers of information or database management services solely for purposes of assisting in the delivery of emergency services in response to an emergency.'.

(2) by redesignating subsection (f) as subsection (h) and by inserting the following after subsection (e):

`(f) AUTHORITY TO USE WIRELESS LOCATION INFORMATION- For purposes of subsection (c)(1), without the express prior authorization of the customer, a customer shall not be considered to have approved the use or disclosure of or access to--

`(1) call location information concerning the user of a commercial mobile service (as such term is defined in section 332(d)), other than in accordance with subsection (d)(4); or

`(2) automatic crash notification information to any person other than for use in the operation of an automatic crash notification system.

`(g) SUBSCRIBER LISTED AND UNLISTED INFORMATION FOR EMERGENCY SERVICES- Notwithstanding subsections (b), (c), and (d), a telecommunications carrier that provides telephone exchange service shall provide information described in subsection (i)(3)(A) (including information pertaining to subscribers whose information is unlisted or unpublished) that is in its possession or control (including information pertaining to subscribers of other carriers) on a timely and unbundled basis, under nondiscriminatory and reasonable rates, terms, and conditions to providers of emergency services, and providers of emergency support services, solely for purposes of delivering or assisting in the delivery of emergency services.';

(3) by inserting `location,' after `destination,' in subsection (h)(1)(A) (as redesignated by paragraph (2)); and
(4) by adding at the end of subsection (h) (as redesignated), the following:

`(4) PUBLIC SAFETY ANSWERING POINT- The term `public safety answering point' means a facility that has been designated to receive emergency calls and route them to emergency service personnel.

`(5) EMERGENCY SERVICES- The term `emergency services' means 9-1-1 emergency services and emergency notification services.

`(6) EMERGENCY NOTIFICATION SERVICES- The term `emergency notification services' means services that notify the public of an emergency.

`(7) EMERGENCY SUPPORT SERVICES- The term `emergency support services' means information or data base management services used in support of emergency services.'.

SEC. 6. DEFINITIONS.

As used in this Act:

(1) SECRETARY- The term `Secretary' means the Secretary of Transportation.
(2) STATE- The term `State' means any of the several States, the District of Columbia, or any territory or possession of the United States.

(3) PUBLIC SAFETY ANSWERING POINT; PSAP-The term `public safety answering point' or `PSAP' means a facility that has been designated to receive 9-1-1 calls and route them to emergency service personnel.

(4) WIRELESS CARRIER- The term `wireless carrier' means a provider of commercial mobile services or any other radio communications service that the Federal Communications Commission requires to provide wireless 9-1-1 service.

(5) ENHANCED WIRELESS 9-1-1 SERVICE- The term `enhanced wireless 9-1-1 service' means any enhanced 9-

1-1 service so designated by the Federal Communications Commission in the proceeding entitled `Revision of the Commission's Rules to Ensure Compatibility with Enhanced 9-1-1 Emergency Calling Systems' (CC Docket No. 94-102; RM-8143), or any successor proceeding.

(6) WIRELESS 9-1-1 SERVICE- The term `wireless 9-1-1 service' means any 9-1-1 service provided by a wireless carrier, including enhanced wireless 9-1-1 service.

(7) EMERGENCY DISPATCH PROVIDERS- The term `emergency dispatch providers' shall include governmental and nongovernmental providers of emergency dispatch services.

Appendix B
DFA's E911 Fund Projected Revenue and Expenses

Source: Local Government Division

Date: 01/12/06

PROJECTED ENHANCED 911 EQUIPMENT FUND
(Column totals are as of the end of the fiscal year)

745

ENHANCED E-911 FUND EXPENSES	7/05 - 6/06	7/06 - 6/07	7/07 - 6/08	7/08 - 6/09	7/09 - 6/10
	FY06	FY07	FY08	FY09	FY10
Anticipated Contract maintenance - 5% increase per year	1,634,801	1,716,541	1,802,368	1,892,487	1,987,111
Non anticipated maintenance - i.e. acts of God (lightning, wind, etc.)	100,000	100,000	100,000	100,000	100,000
911 Equipment Revenue Bond Debt Payments	775,475	778,525	0	0	0
Lea & Eddy Counties Valor Network & Database	209,000	209,000	0	0	0
Monthly Network & Database line costs at an increase of 2% per year.	2,219,830	2,264,227	2,309,511	2,355,701	2,402,815
Network, MSAG & other consultanting	2,000,000	1,000,000	750,000	500,000	500,000
Qwest Magnet network	240,000	252,000	264,600	277,830	291,722
E911 upgrades and mapping equipment for Phase I wireless; equipment replacement	9,770,737	8,217,559	5,500,000	5,500,000	5,000,000
Wireless carrier cost recovery for Phase I wireless	541,980	596,178	655,796	721,376	793,513
Administrative costs - 5% of revenue fund	537,764	553,243	569,589	586,850	605,077
TOTAL EXPENSES	18,029,587	15,687,273	11,951,864	11,934,243	11,680,238
FUND REVENUE					
Landline surcharge - @$0.51 per month for 12 months for 10,249,171 lines	5,227,077	5,227,077	5,227,077	5,227,077	5,227,077
Wireless surcharge - @$0.51 per month for 12 months for 10,839,605 subscribers increasing by 5.6% per year	5,528,199	5,837,778	6,164,693	6,509,916	6,874,471
Interest Income - approximately 2.5% of annual revenue	309,945	276,621	284,794	293,425	302,539
TOTAL REVENUE	11,065,221	11,341,476	11,676,564	12,030,418	12,404,087
PRIOR YEAR END BALANCE	12,134,685	5,170,319	824,522	549,223	645,397
PROJECTED YEAR END BALANCE	5,170,319	824,522	549,223	645,397	1,369,246